WHAT IS CLAIMED IS:

1. A virtual router distributed on a carrier network, said carrier network comprising one or more components, each of the components comprising at least two nodes communicating with one another by means of an artery, a node comprising a FAx access function and server functions (LES/BUS, LECS, MPS), wherein at least one component of said network comprises the following elements:

- several ELANi-bridges, each ELANi-bridge being connected to a virtual network VLANi,
- at least one transit ELAN, Tx,
- at the level of an access function FAx:
  - LEC router means Rix adapted to connecting the access function FAx to at least one ELANi associated with a VLANi,
  - means (Lx) for the identification of the VLANi serviced by the access function FAx,
  - means (LEC transit) to connect the transit ELAN to the access function.

2. A distributed router according to claim 1, wherein the step of determining the lists of the serviced VLANi is obtained by considering any one of the Lm lists and determining the contents of its intersection with any other of the lists to obtain the empty set.

3. A router according to claim 2, wherein a list Lm is drawn up by using an election protocol such as the VRRP protocol standardized at the IETF.

4. A router according to one of the claims 2 or 3, comprising an election function implanted in the access function FAx engaged in dialog with the homologous functions by exchange on the ELANi bridges in using the LEC routers Rix.

5. A router according to one of the above claims, wherein a VLAN comprises at least one « LEC user » connected to a node of the carrier network.

6. A router according to the above claim, wherein the « LEC user » function is implanted in a node of the carrier network for ethernet type access operations.

7. A router according to one of the claims 1 to 6, distributed in ATM type carrier networks with IP type data packets.

8. A method of routing in a switched network comprising one or more components, the component or components comprising at least two nodes connected by a communications artery, each of the nodes comprising an access function FAx, wherein the method comprises at least one step where the access function relays the data packets received on one of the LECs as follows:

(a) if the addressee of the packet is an internal routing function laid out at a node X, the packet is directly handed over to said function,

(b) if the addressee of a packet is a VLAN serviced by the FAx access function, the data packet is relayed to the router having the same identifier,

(c) if the addressee of the packet is a VLAN that is not serviced, the packet is relayed to the transit ELAN.

9. A routing method according to the above claim 8, wherein the step (b) is carried out as follows:

. if the addressee VLAN with the identifier j belongs to the list Lx, the relaying function of FAx is activated and the data packet is relayed to the LEC router Rjx having an identifier that is the identifier of the addressee VLAN, and

the step (c) is carried out as follows:

. if the addressee VLAN does not belong to the list Lx, the data packet is relayed to the transit LEC mentioned in the routing table.

10. A routing method according to one of the claims 8 and 9, wherein the relaying step is performed for a data packet received on the router LEC implanted in an access function.

11. A method according to one of the claims 8 and 9 wherein the relaying step is achieved for a data packet received on the transit LEC of the component of the network.

12. A routing method according to one of the claims 8 to 11 using an ATM type carrier network and IP data packets.